

ABSTRACT OF THE DISCLOSURE

An apparatus for generating an acoustic signal which has a dielectric substrate having opposed first and second sides. A pair of electrodes are mounted on the first surface of the substrate so that the electrodes are spaced apart from each other. A high voltage power source is electrically connected to the electrodes to produce a high voltage electric potential between the electrodes and this high voltage electric potential is less than a level sufficient to create a surface arc discharge along the first surface of the dielectric substrate. An electrical conductor strip is mounted to the second side of the substrate. A trigger signal circuit then applies a trigger voltage signal to either the electrical connector strip or one of the electrodes which varies the electric field between the electrodes in an amount sufficient to ionize air adjacent one of the electrodes and create a surface arc discharge along the first surface of the dielectric between the electrodes which generates the acoustic impulse as a byproduct of the discharge.